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60 anos
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Uma das maneiras de olhar o ofício de produzir informações sociais, econômicas e territoriais é como arte de descrever o mundo. Estatísticas e mapas transportam os fenômenos da realidade para escalas apropriadas à perspectiva de nossa visão humana e nos permitem pensar e agir à distância, construindo avenidas de mão dupla que juntam o mundo e suas imagens. Maior o poder de síntese dessas representações, combinando, com precisão, elementos dispersos e heterogêneos do cotidiano, maior o nosso conhecimento e a nossa capacidade de compreender e transformar a realidade.

Visto como arte, o ofício de produzir essas informações reflete a cultura de um País e de sua época, como essa cultura vê o mundo e o torna visível, redefinindo o que vê e o que há para se ver.

No cenário de contínua inovação tecnológica e mudança de culturas da sociedade contemporânea, as novas tecnologias de informação – reunindo computadores, telecomunicações e redes de informação – aceleram aquele movimento de mobilização do mundo real. Aumenta a velocidade da acumulação de informação e são ampliados seus requisitos de atualização, formato – mais flexível, personalizado e interativo – e, principalmente, de acessibilidade. A plataforma digital vem se consolidando como o meio mais simples, barato e poderoso para tratar a informação, tornando possíveis novos produtos e serviços e conquistando novos usuários.

Acreditamos ser o ambiente de conversa e controvérsia e de troca entre as diferentes disciplinas, nas mesas redondas e sessões temáticas das Conferências Nacionais de Geografia, Cartografia e Estatística e do Simpósio de Inovações, aquele que melhor enseja o aprimoramento do consenso sobre os fenômenos a serem mensurados para retratar a sociedade, a economia e o território nacional e sobre as prioridades e formatos das informações necessárias para o fortalecimento da cidadania, a definição de políticas públicas e a gestão político - administrativa do País, e para criar uma sociedade mais justa.

Simon Schwartzman
Coordenador Geral do ENCONTRO

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Registramos ainda a colaboração de técnicos das diferentes
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consolidação do projeto do ENCONTRO.

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DATA COLLECTION ON SMALL ECONOMIC UNITS OF THE INFORMAL SECTOR

Paper prepared by

Ralf Hussmanns
Bureau of Statistics
International Labour Office
CH-1211 Geneva 22

1. BACKGROUND

1.1 Concept of the informal sector

The term "informal sector" has come into wide use during the last two decades although its precise meaning has remained a subject of controversy. It is an umbrella concept to describe a variety of activities producing goods and services through which individuals derive employment and incomes. They are informal in the sense that they are for the most part unregistered and operating on a very small scale and with a low level of organisation. Most of them have very low levels of productivity and income. They tend to have little or no access to organised markets, to credit institutions, to modern technology, to formal education and training facilities, and to many public services and amenities. A large number of them are carried out without fixed location or in places that are not visible to the authorities, such as small (work)shops or home-based activities. They are not recognised, supported or regulated by the government, and often compelled by circumstances to operate outside the framework of the law. Even where they are registered and respect certain aspects of the law, they are almost invariably beyond the pale of social protection, labour legislation and protective measures at the workplace.

Beyond these generalisations, the informal sector manifests itself in different ways in different countries, different regions within the same country, and even different parts of the same city. It encompasses different kinds of activities, different types of businesses, and different motives for participation. The activities range from street vending, shoe-shining, food processing and other petty activities requiring little or no capital and skills and with marginal output to those involving a certain amount of investment in skills and capital and with higher productivity, such as manufacturing, tailoring, car repair and mechanised transport. They are mostly operated by single individuals working on own account as self-employed business operators, either alone or with the help of unpaid family members, although some are micro-entrepreneurs engaging a few paid workers or apprentices. Labour relations, if existing, are based mostly on casual employment, kinship, personal or social relations rather than contracts with formal guarantees. Informal sector activities are undertaken with the primary objective of self-generation of employment and incomes, rather than maximisation of profit or of return on investments. The motives for participation in the informal sector range from pure survival strategies undertaken by individuals in lack of (adequate) jobs and social protection, to the desire for independence and flexible work arrangements and, in some cases, the prospect of quite profitable income-earning opportunities, or the continuation of traditional activities.

Informal sector activities are not necessarily performed with the deliberate intention of evading the payment of taxes or social security contributions, or infringing labour legislation or other regulations. Certainly, some of the units prefer to remain unregistered or unlicensed in order to avoid compliance with some or all regulations and thereby reduce production costs. One should however make a distinction between those whose business revenue is high enough to bear the costs of regulations and those who are "illegal" because they cannot afford to comply with existing regulations because their income is too low, or because certain laws and regulations are quite irrelevant to their needs and conditions. The concept of the informal sector should therefore be distinguished from the concept of the

hidden or underground economy, although in reality there will always be some overlap between the informal sector and the hidden or underground economy.

1.2   Importance of statistical data collection on the informal sector

In the past, the informal sector used to be largely ignored by official statistics; informal sector activities were either omitted from the existing statistics or, if captured, not identified separately. Little need was felt to collect data on informal sector activities because the development strategies pursued were mainly oriented towards modern, large-scale enterprises, and the informal sector was considered a transient phenomenon that would dwindle away in the near future as jobs were created in the modern, formal sector. However, during the past decade economic recession, adjustment policies and continued high rates of urbanisation and population growth have led to an unprecedented expansion of the informal sector in many countries, as modern sector enterprises, and especially the public sector, were obliged to release workers or reduce wages drastically. In some countries, it was in fact only the informal sector which absorbed the labour force and kept the economy going while the large, modern enterprises reeled under the downturn. Moreover, the process of industrial restructuring in the formal sector led to a greater decentralisation of production through subcontracting to small enterprises, many of them in the informal sector. According to rough estimates, the informal sector now accounts for up to 40, 55 and 70 percent of total urban or non-agricultural employment in Latin American, Asian and African countries respectively. Its contribution to the gross domestic product is usually lower but far too high to be negligible. There is every reason to believe that a large and probably increasing segment of the labour force in many countries will be engaged in the informal sector for many years to come, and that the informal sector will remain an important and probably expanding part of the national economies. It is therefore increasingly recognised by researchers and policy-makers that the informal sector can no longer be ignored and that it needs to be integrated, in one way or the other, into the overall development process.

As a result, a growing number of national statistical agencies are being requested by their governments and others to provide, as part of their regular statistical programmes, comprehensive data on the size and characteristics of the informal sector and its evolution over time. Such data are usually collected by the central statistical offices or national statistical institutes, and sometimes by the statistical units of ministries of labour. They represent an important step forward towards the improvement of labour statistics, economic statistics and national accounts as an information base for macroeconomic analysis, planning, policy formulation and evaluation, and to recognition of the contribution of the informal sector to various aspects of economic and social development, including employment creation, production, income generation, human capital formation and the mobilization of financial resources. The data can also be used for the design and evaluation of support policies and assistance programmes for the informal sector with a view to increasing its productive potential (and, hence, its employment- and income-generating capacity), improving the working conditions and social and legal protection of informal sector workers, developing an appropriate regulatory framework and promoting the organization of informal sector producers and workers, and for analysis of the situation of particular groups of informal sector workers such as women, children, rural-urban migrants or immigrants.

Informal sector statistics are especially needed in countries where the informal sector plays a significant role in total employment and income generation. It is beyond doubt that an informal sector exists in all countries, but the scale of the phenomenon and the context in which it occurs may be quite different. For these reasons, the development of informal sector statistics is not given the same priority in all countries and may require different measurement methods.

2. INTERNATIONAL STANDARDS ON INFORMAL SECTOR STATISTICS

2.1 Need and content of international standards on informal sector statistics

It is most obvious that the informal sector does not easily lend itself to statistical measurement. Due to the diversity of activities and modes of operation to which it refers, the concept of the informal sector as such is not very clear-cut. Accordingly, the informal sector is difficult to define precisely in terms of statistical units, operational criteria, and specification of its scope and composition. Moreover, the large number of units to be surveyed and their characteristics (small size, high mobility and turnover, clustering in specific areas, lack of recognizable features for identification/location, etc.) require modifications in traditional survey methods or the development of new methods.

In order to assist the statistical agencies of member States in these challenging tasks, the ILO Bureau of Statistics launched a series of activities during the late 1980's which culminated in the adoption of a "Resolution concerning statistics of employment in the informal sector" by the Fifteenth International Conference of Labour Statisticians (ICLS) in January 1993. Preparatory work for the resolution included: a review of the research on the informal sector undertaken in the past by the ILO and others; consultation with subject-matter specialists; the study of national practices in those countries where informal sector data collection had already started; a continued exchange of views and information with the statistical agencies concerned; experiences acquired through technical co-operation activities executed or technically supported by the ILO Bureau of Statistics; presentation of the work achieved for discussion by statistical meetings; organisation of a tripartite Meeting of Experts on Labour Statistics in Geneva (January/February 1992); and preparation of a report on statistics of employment in the informal sector for the Fifteenth ICLS.

The informal sector resolution adopted by the Fifteenth ICLS represents the first (and so far only) internationally approved technical guidelines for the development of statistics on the informal sector. It will also help to enhance the international comparability of such statistics. The resolution covers a variety of issues relating to the definition of the informal sector and the design, content and conduct of informal sector surveys. It lays down the measurement objectives for informal sector data collection. It describes the concept of the informal sector and relates it to the conceptual framework of national accounting. It specifies the criteria of an operational statistical definition of the informal sector and makes a number of recommendations regarding the scope of informal sector surveys and the statistical treatment of particular cases which are at the borderline between the informal and other sectors. The resolution also provides guidelines for the design of informal sector data collection methods and programmes, account being taken of the measurement objectives pursued and differences in national statistical systems, and a recommendation to collect data

on the informal sector on a regular basis as part of the national statistical programme. Finally, it includes a set of proposals regarding informal sector sub-classifications and the types of data collected in informal sector surveys.

The relevance of the resolution goes beyond employment statistics. In July 1993, the UN Economic and Social Council, upon recommendation of its Statistical Commission, adopted the revised System of National Accounts (SNA 1993). The informal sector definition adopted by the Fifteenth ICLS forms part of the SNA 1993. This is because one of the new features of the SNA 1993 is the recommendation to introduce, where relevant, sub-classifications of the households sector, including a distinction between the formal and informal sectors. Such a distinction makes it possible for the accounts to quantify the contribution of the informal sector to the national economy. The ILO as lead agency in the promotion of the informal sector concept was requested to take part in this work by developing international guidelines for a statistical definition of the informal sector in such a way that the definition could also be used for national accounting purposes.

2.2   Definition of informal sector units

The main features of the informal sector definition adopted by the Fifteenth ICLS can be summarised as follows:

(a)   The informal sector is defined in terms of characteristics of the production units (enterprises) in which the activities take place. Consequently, the population employed in the informal sector comprises all persons who, during a given reference period, were engaged in at least one production unit of the informal sector, irrespective of their status in employment and whether it is their main or a secondary job. Persons employed in production units outside the informal sector are excluded, no matter how precarious their employment situation may be.

(b)   The informal sector is considered as a subset of household enterprises or, synonymously, unincorporated enterprises owned by households. In accordance with the SNA 1993, household enterprises are defined as production units which are not constituted as separate legal entities independently of the households or household members that own them, and for which no complete sets of accounts (including balance sheets of assets and liabilities) are available which would permit a clear distinction of the production activities of the enterprises from the other activities of their owners and the identification of any flows of income and capital between the enterprises and the owners.

Household enterprises include unincorporated enterprises owned and operated by individual household members or by several members of the same household as well as unincorporated partnerships and co-operatives formed by members of different households. The enterprises may or may not employ paid workers, and the activities may be carried out inside or outside the owner's home. The term 'household enterprises' simply means that these units form part of the SNA institutional sector 'households'. The characteristic features of household enterprises correspond to the concept of the informal sector as commonly

understood. The fixed and other capital used does not belong to the production units as such but to their owners. The enterprises as such cannot engage in transactions or enter into contracts with other units, nor incur liabilities on their own behalf. The owners have to raise the necessary finance at their own risk and are personally liable, without limit, for any debts or obligations incurred in the production process. Expenditure for production is often indistinguishable from household expenditure, and capital goods such as buildings or vehicles may be used indistinguishably for business and household purposes.

(c)   Within the conceptual framework of household enterprises, a distinction is made between enterprises of employers and own-account enterprises, based on whether or not the enterprises employ employees on a continuous basis (as contrasted with the employment of employees on an occasional basis and of contributing family workers). The distinction is important not only for data analysis but also for definitional purposes: as compared with own-account enterprises, enterprises of employers necessarily have a higher degree of formality in their operations and may therefore require one or more additional criteria for being classified in the informal sector.

The informal sector comprises *informal* own-account enterprises and enterprises of *informal* employers. Depending on national circumstances, either all own-account enterprises should be considered informal, or only those which are not registered under specific forms of national legislation (e.g. factories or commercial acts, tax or social security laws, professional groups' regulatory acts, or similar acts, laws or regulations established by national legislative bodies as distinct from regulations enacted by local authorities).

Enterprises of informal employers are defined in terms of one or more of the following three criteria: small size of the establishment(s) in terms of employment, non-registration of the enterprise, and non-registration of its employees (in terms of the absence of employment contracts which commit the employer to pay relevant taxes and social security contributions on behalf of the employees or which make the employment relationships subject to standard labour legislation). The criterion of employment size should preferably refer to the number of employees employed on a continuous basis; for practical reasons, it may however also be formulated in terms of the total number of employees or the number of persons engaged during a specific reference period (including the business owner(s) and contributing family workers). The size limit was not specified by the ICLS because it may have to vary between countries and branches of economic activity. An enterprise composed of more than one establishment should be considered informal if none of its establishments exceeds the size limit. The choice of the size limit should take account of the coverage of establishment surveys for the corresponding branches of economic activity, where they exist, in order to avoid an overlap. (Some countries prefer, however, to have an overlap in coverage as long as it can be identified, as response rates and data quality in establishment surveys tend to be relatively low in the case of the smaller units.)

(d)   Informal sector activities are undertaken to earn one's living or obtain an additional income; household enterprises which are <u>exclusively</u> engaged in production for own final consumption or own fixed capital formation (i.e. building of own houses etc.) are therefore excluded from the informal sector.

(e)   For practical reasons, it is recommended to exclude agricultural activities; however, non-agricultural activities of household enterprises in the agricultural sector should be included if they meet the criteria of the informal sector definition.

(f)   In principle, the informal sector includes units located in urban areas as well as units located in rural areas; initially, data collection may however be confined to urban areas.

(g)   Enterprises engaged in professional or technical services rendered by self-employed doctors, lawyers, accountants, architects, engineers, etc. should be included in the informal sector on the same basis as other enterprises.

(h)   Outworkers (homeworkers) are to be included in the informal sector if they constitute enterprises on their own as self-employed persons, and if these enterprises meet the criteria of the informal sector definition.

(i)   The issue of whether or not domestic workers engaged by households (e.g. maids, watchmen, drivers, gardeners) should be included in the informal sector, is left open for determination depending upon national circumstances and the intended uses of the statistics.

(j)   There is no formal/informal sector dichotomy. Activities excluded from the scope of the informal sector are not necessarily formal and may thus be identified as separate categories outside this distinction. Examples are non-market production, small-scale agriculture and domestic services.

        Defined in this way, the informal sector comprises a fairly heterogeneous set of units which need to be classified by various characteristics (e.g. urban vs. rural location, kind of activity, type of workplace, size, composition of the workforce, type of ownership, relation with other enterprises) in order (i) to show the structure of the informal sector, and (ii) to identify more homogeneous groups for data analysis, as targets for policies and support programmes, and basis for comparisons of the statistics over time and between countries. For particular analytical purposes, it may also be necessary to develop more specific definitions of the informal sector by introducing further criteria on the basis of the data collected.

2.3   Methods of data collection on the informal sector

        It was often stated in the past that data collection on the informal sector is virtually impossible because the units involved and their activities are "unmeasurable". However, the experience made in a number of countries has meanwhile shown that it is possible to obtain

statistical data on the informal sector through various types of surveys, provided the survey design and operations are adapted to the particular characteristics of the informal sector. The measurement objectives determine the survey method to be used, and a combination of methods can be useful for development of a comprehensive programme of informal sector data collection.

2.3.1   Household surveys

If the aim is to monitor the evolution of informal sector employment in terms of the number and characteristics of the persons involved and the conditions of their employment and work, it suffices to include periodically in existing labour force or other household surveys a few additional questions pertaining to the informal sector definition and the characteristics of informal sector employment. These questions should be asked in respect of all persons employed during the reference period of the survey, irrespective of their status in employment, and in respect of their main and secondary jobs. In this way, it is possible to collect comprehensive data on informal sector employment and to obtain information on the conditions of employment and work from all categories of informal sector workers, including employees and contributing family workers. Moreover, data on the volume and characteristics of employment in the informal sector can be collected along with corresponding data on employment in other sectors and on unemployment as obtained from the same source, and data on informal sector employment can be related at the micro-level to other information collected in the same survey. The additional cost for the measurement of informal sector employment is relatively low. The Fifteenth ICLS recommended that the evolution of informal sector employment should be monitored through measurement once a year, if possible.

In order to ensure that all informal sector activities are covered, it will often be necessary to make special probes on activities that might otherwise go unreported, such as unpaid work in small family enterprises, activities undertaken by women on their own account at or from home, undeclared activities and informal sector businesses conducted as secondary jobs by farmers, government officials or employees of the private formal sector. In order to capture adequately the work of children in the informal sector, it may also be necessary to lower the minimum age limit which the surveys use for measurement of the economically active population. In designing or re-designing the survey sample, care should be taken to include an adequate number of sample areas where informal sector workers live.

When using labour force or other household surveys for the measurement of informal sector employment, one needs to be aware of certain limitations. (i) Informal sector employment is measured as part of total employment which, in most cases, is measured in relation to a short reference period, such as one week; as many informal sector activities are characterized by seasonal and other variations over time, data on informal sector employment obtained in respect of a short reference period are unlikely to be representative for the whole year. There may therefore be a need to improve the representativeness in the time dimension in repeating the measurement of informal sector employment at different times during the year in the case of quarterly or monthly surveys, or in using a longer reference period such as one year in the case of annual or less frequent surveys. (ii) An estimation of the number of informal sector enterprises is difficult, if not impossible. (iii) The application of the

informal sector definition may pose problems in the case of employees, contributing family workers and proxy respondents, who usually have only limited knowledge of the characteristics of the enterprises in question, including the characteristics relating to the definition of the informal sector. (iv) The possibilities for disaggregation of the data on informal sector employment depend on the sample size and design.

If the measurement objectives are to collect detailed structural information on the composition of the informal sector in terms of the number and characteristics of the businesses involved, and to obtain data for an in-depth examination of the production activities, employment, income generation and capital equipment of informal sector enterprises, the conditions and constraints under which they operate, their organisation and relationships with the formal sector and the public authorities, etc., surveys are required in which the informal sector businesses themselves and their owners are the observation and reporting units. According to the Fifteenth ICLS resolution, such surveys should be conducted every five years, if possible. For this purpose, various kinds of survey arrangements may be chosen, depending upon the data requirements of countries, the organisation of their statistical systems, and the amount of resources available: establishment surveys, mixed household and enterprise surveys, or a combination of these.

2.3.2   Establishment surveys

The establishment survey approach pre-supposes the availability of a sampling frame for informal sector establishments. Establishment surveys of informal sector units can therefore only be conducted in conjunction with censuses of informal sector establishments or, preferably, general establishment or economic censuses which cover all establishments in the relevant branches of economic activity and contain the items required for identification of informal sector units. If the informal sector survey is conducted immediately after the census, the census lists can be used as a list frame for selection of a sample of informal sector establishments. If the informal sector survey is to be conducted later, data from the last establishment or economic census can still be used to construct an area sampling frame for the selection of sample areas, account being taken of the density of informal sector establishments of various types in the census enumeration areas. In this case, systematic updating of the lists of establishments in the sample areas is usually required prior to the selection of the final sampling units (multi-stage design).

Establishment or economic censuses are large-scale, costly operations which many countries, due to resource constraints, cannot undertake or undertake only in the major urban areas. There is also the problem of achieving a complete coverage of the informal sector, without omissions or duplications, in establishment censuses and surveys. Many informal sector businesses are difficult to identify and locate because they lack recognizable business premises; examples are activities conducted inside the business owner's home (e.g. tailoring, food processing) or without fixed location (e.g. construction, transport, ambulant trade). Unless substantial particular efforts are made, such activities are likely to be omitted in establishment censuses and surveys. One such effort, which has proven to be efficient and cost-effective in a number of countries, is the conduct of an establishment or economic census concurrently with the house-listing operation for a population census.

Moreover, because information is collected separately for each establishment, it may be difficult to reveal the linkages between several informal sector activities undertaken by the same individuals or households, and to consolidate the data at the enterprise or household level; there may be double-counting of activities in cases where, for example, some members of a family produce goods in a small workshop or at home, and other members of the same family sell these goods in a market or street stall. Notwithstanding these limitations, establishment surveys remain to be a useful and efficient method of data collection on the "upper" segments of the informal sector (identifiable establishments), which are often the main target groups of small enterprise development programmes.

2.3.3 Mixed household and enterprise surveys

If the aim is to collect comprehensive data on the informal sector as a whole and the various segments it is composed of, mixed household and enterprise surveys have shown to be the most suitable approach. This is because it is relatively easy in such surveys to cover all informal sector entrepreneurs (except homeless persons) and their activities irrespective of the size of the businesses, the kind of activity and the type of workplace used, including activities undertaken inside the business owner's home or without fixed location, and irrespective of whether it is their main or a secondary job. Mixed household and enterprise surveys are based on area sampling and conducted in two phases. In the first phase, a comprehensive sampling frame for informal sector enterprises is obtained through a household listing or survey operation in selected sample areas, during which all businesses falling within the scope of the survey and their owners are identified (household survey component). In the second phase, all or a sample of the business owners are interviewed in order to obtain detailed information on their own characteristics and those of their businesses and workers, if applicable (enterprise survey component). As information during the first survey phase often has to be obtained from household members other than the business owners themselves (proxy respondents), it is normally not possible at this stage to obtain good quality data in respect of all the criteria of the informal sector definition. In order to ensure a complete coverage, it is therefore preferable during the first survey phase to identify the owners of all businesses which potentially form part of the informal sector. On the basis of the data collected during the second survey phase, informal sector businesses can later on be identified more specifically (post-sampling identification).

Mixed household and enterprise surveys make it possible to analyze jointly, at the enterprise or household level, the various kinds of informal sector activities undertaken by the same individuals or households. Moreover, data on the characteristics of the informal sector activities and business owners can be related to the characteristics of the business owners' households as obtained from the same survey, which is important, in particular, for assessment of the contribution of other household members to the household income and for analysis of the impact of the household situation on the activities of women and children working as informal sector entrepreneurs.

## (a)	Independent informal sector surveys

Mixed household and enterprise surveys can be conceived either as independent informal sector surveys or as informal sector modules attached to existing labour force or other household surveys. In many cases, an independent survey is technically the better arrangement because its sample can be specifically designed and selected to meet the requirements of informal sector measurement, i.e. inclusion of the various types of informal sector businesses, for which reliable separate estimates are needed, in adequate number in the final sample. This aspect is important if one wants to be able to analyze the differences between various segments of the informal sector regarding their income-generating potential, constraints and other characteristics.

Independent informal sector surveys using the mixed household and enterprise survey approach are based on a multi-stage design involving the following steps: (1) selection of sample areas; (2) household listing; (3) selection of sample households with owners of (potential) informal sector businesses; and (4) main interviewing of sample households and business owners. Sample allocation and selection at the first and/or second stage of sampling should be made according to the density of informal sector entrepreneurs and type of activity (stratified sampling). The sample design must take into consideration that some types of informal sector activities (e.g. transport, repair and other services) are likely to be less well represented in the universe than others (e.g. trade, cooked food sale). There are also informal sector activities (e.g. certain types of manufacturing) which tend to be concentrated in specific areas. With a view to ensuring an adequate representation of all such activities in the sample and reducing clustering effects, it is important to include a sufficient number of sample areas (PSUs) in the sample. For allocation and selection of the PSUs, an area sampling frame should be used consisting of enumeration areas of appropriate size, stratified according to the density of informal sector activities of different types or, at least, according to the overall density of informal sector activity in these areas. All available information should be used for the construction of such a frame, including data obtained from the latest population census on the density of employers and own-account workers in the enumeration areas classified by broad activity groups (and, if available, by type of workplace and number of employees), data on the concentration of small establishments as obtained from the latest establishment or economic census, a stratification of enumeration areas by income level or other socio-economic criteria as made for the selection of household master or survey samples, relevant information obtained during listing or data collection for previous informal sector or other surveys, and local expert knowledge about the spatial distribution of informal sector activities in the towns to be covered by the survey. These should normally provide a reasonably good approximation of the density of informal sector entrepreneurs living in the enumeration areas at the time of the survey. Enumeration areas with a high density of informal sector entrepreneurs in the relevant activity groups should then be selected at a higher rate in order to obtain more of the sample from such areas, increase sampling efficiency, and reduce survey cost. The cost aspect is particularly important in respect of the household listing which is an expensive operation unless it can be combined with listing for another survey. If more of the sample is obtained from areas with a high density of informal sector entrepreneurs, the number of households to be listed can be reduced in relation to the number of households included in the final sample.

In an independent informal sector survey, the first survey phase is confined to a listing of households in the sample areas. The quality of listing is a key factor for the overall quality of estimates obtained from such a survey. All households in the sample areas have to be listed, and all potential informal sector entrepreneurs and businesses of these households to be identified. During this phase, data on the kind of activity and other basic characteristics of the businesses must be collected as needed for the stratification and selection of the final sample of households. For purposes of sample selection and weighting, it is easier if a single activity code is assigned to each household. The code determines the activity stratum into which the household is classified; in assigning it, priority can be given to activities less well represented in the universe so as to increase the number of such activities in the final sample. (However, once a household is selected into the final sample, information should be collected during the second survey phase on all informal sector activities undertaken by the members of this household.) The sample households then use to be selected in using differential sampling fractions for the various activity strata. The aim is to make the allocation of the final sample to the various strata as homogeneous as possible and to ensure that an adequate number of households from each stratum is included.

The design of an independent informal sector survey entails fairly complex survey operations and sample weighting/estimation procedures. It requires a team of qualified survey staff, sound training of interviewers, constant supervision and control of all survey operations, and care in keeping records of the listing operation, sample selection and sample outcome for each sample area.

(b)   Informal sector modules attached to household surveys

Attachment of an informal sector module to an existing household survey means that the informal sector survey sample is obtained as a sub-sample of the base survey. The informal sector survey may be conducted simultaneously with the base survey or consecutively. For practical reasons, the consecutive arrangement is preferred in most cases, as it (i) facilitates the management and coordination of the two surveys, (ii) ensures that the survey operations for the base survey can proceed smoothly, (iii) is unlikely to have a negative impact on the quality of the base survey data, and (iv) provides a better control over the identification and selection of the sub-sample for the informal sector survey.

The modular approach was first developed by statistical offices of Latin American countries with technical assistance from the ILO Regional Programme for Employment in Latin America and the Caribbean (PREALC). It is less complex and less expensive than the conduct of an independent informal sector survey, because information collected during the base survey provides the basis for the identification and selection of the sub-sample of households or persons for the informal sector survey, and no special household listing is required. However, the modular approach can only be used in situations where a suitable base survey (such as a labour force survey or a household income and expenditure survey) exists, and where it is feasible, in terms of survey operations and response burden, to combine data collection on the informal sector with data collection on another topic. As in the case of household surveys for the measurement of informal sector employment, the representativeness of the data in terms of time depends on the reference period of the base survey. Moreover, the modular approach may have certain limitations resulting from the fact

that the base survey samples were usually not designed and selected for the purpose of informal sector measurement, neither at the level of sample areas nor at the level of sample households. The number of informal sector entrepreneurs included in the sample may therefore be quite small, and insufficient to yield reliable separate estimates for each type of informal sector activity for which such estimates would be desirable. There is no control over the distribution of the informal sector survey sample by type of activity and its representativeness. There are, of course, ways to increase the size of the informal sector survey sample. If the information required for identification of the units eligible for the informal sector survey is obtained during the listing operation for the base survey, the informal sector survey sample can be selected on the basis of all households in the sample areas, rather than only those selected for the base survey sample. Alternatively, if resources permit, the base survey sample may be increased by adding appropriately chosen supplementary sample areas to it; in this way, the sample design will most likely be improved not only for informal sector measurement but also for the base survey itself.

From the methodological point of view, the strengths of the modular approach lie in its possibilities (i) to monitor changes of the informal sector over time, if the base survey is conducted regularly and an informal sector module attached to it periodically at sufficiently frequent intervals; (ii) to achieve a complete coverage and accurate identification of (potential) informal sector entrepreneurs in the sample households during the base survey interviews, particularly if a labour force survey is used for this purpose; (iii) to use for the informal sector survey data the sampling weights of the base survey and thereby facilitate the estimation of the survey results; and (iv) to relate data on the informal sector activities to data obtained from the base survey.

2.4   Means to improve contact/response rates and data quality

To our knowledge, a systematic evaluation of data quality has never been made for any informal sector survey conducted until now. A characteristic (and for statisticians annoying) feature of many informal sector businesses is their high mobility and turnover. In order to reduce non-contact rates and distortions of the survey data resulting from sample units that have moved to a new location or changed or stopped their activity, the time interval between the two survey phases (listing/identification and main interviewing) should be kept as short as possible. In addition, every possible effort should be made to trace sample units at their new location. A replacement by other units should be avoided. Another useful means of increasing contact rates, as well as the quality of the data obtained, is to interview, to the extent possible, those informal sector entrepreneurs, who conduct their business in fixed locations outside their home, at their actual place of work rather than the place of residence of their household. This applies to mixed household and enterprise surveys, in particular.

Most informal sector entrepreneurs have a low level of education and do not keep (usable) written records of their activities. They are not used to participate in statistical surveys and often not willing to devote much time to it. Some are difficult to contact anywhere because they operate without fixed location (e.g. ambulant vendors, taxi drivers, building craftsmen). There may also be a certain number of respondents who are reluctant to answer the survey questions for fear of subsequent taxation or harassment by the

authorities. Under these conditions, it is essential to make provisions which help to improve response rates and data quality in informal sector surveys. These include: advance information of respondents regarding the survey and its purposes; a formal assurance of confidentiality of the data provided; choice of the date, time and place of the interviews in consultation with the respondents themselves; sound motivation, training and supervision of interviewers; establishment of good human relations between interviewers and respondents; design of survey questionnaires which are manageable in the field in terms of content and length, and which are easy to follow and complete by interviewers; second visits to respondents, if necessary; formulation of questions in a way which is understandable by respondents, and which refers to their specific situation and the nature of their activities; and use of short reference periods which enable respondents to provide the required information with sufficient accuracy.

Many informal sector activities are subject to seasonal and other variations over time; hence the question arises of how to capture such variations, and to estimate annual values as needed for national accounting and other purposes, through an informal sector survey. As the use of short reference periods is imperative, and repeated interviews with the same respondents at different times of the year are hardly possible, such variations are captured most accurately at the aggregate level, in spreading data collection over a period of a whole year by dividing the survey sample into independent sub-samples for different parts of the year.

3. ILO INTERDEPARTMENTAL PROJECT ON THE URBAN INFORMAL SECTOR

3.1   Project aims, strategy and arrangements

Since 1993, when the Fifteenth ICLS was held, and in accordance with the informal sector resolution adopted at this Conference, the ILO Bureau of Statistics has continued to provide technical advice and training on informal sector data collection to various countries. A major activity was the participation of the Bureau in the Interdepartmental Project on the Urban Informal Sector, which the ILO launched in early 1994. (The term 'interdepartmental' means that various technical departments of the ILO at headquarters and in the field collaborate in the project.) The project as a whole is both comprehensive and experimental. It is comprehensive in that it aims at contributing not only to improvement of the productivity of informal sector activities and their capacity to generate employment and incomes, but also to the provision of basic social protection and improved working conditions to informal sector producers and workers through gradual application of relevant international labour standards to the informal sector. It is experimental in that its implementation concentrates on three cities: Dar es Salaam (Tanzania), Metro Manila (Philippines), and Bogota (Colombia). In order to achieve its objectives, the Interdepartmental Project is designed to apply means of action combining research, advisory services and technical co-operation in three inter-related phases: studies, dialogue and consensus-building, and operational activities. In terms of technical areas, the project includes seven components. One of these components is informal sector statistics, as gaps in data on the informal sector constitute a limiting factor in policy formulation and evaluation.

The main purposes of the statistical component of the project are (i) to develop, test and evaluate methodologies for informal sector data collection on the basis of the international standards adopted by the Fifteenth ICLS, (ii) to collect representative up-to-date statistical data on the informal sector in the three project cities for policy assessment and action plans, and (iii) to promote statistical capability building through advisory services on informal sector data collection. Accordingly, large-scale statistical surveys of the informal sector were conducted in each of the three project cities by the national statistical agencies with technical support from the ILO Bureau of Statistics: the Dar es Salaam Informal Sector Survey 1995, the 1995 Urban Informal Sector Survey (Metro Manila), and the Encuesta al Sector Informal en Santafé de Bogota (Survey of the Informal Sector in Santafé de Bogota). All three surveys were undertaken as first part of a planned national informal sector survey or as a pilot for such a nation-wide survey.

The survey in Dar es Salaam was executed jointly by the Human Resources Department (lead), the Bureau of Statistics, and the Labour Statistics Unit of the Ministry of Labour and Youth Development; it was funded by the ILO, the Government of Tanzania, and the Swedish International Development Authority (SIDA). The survey in Metro Manila was executed by the National Statistics Office (NSO) and funded by the ILO, the Department of Labor and Employment, and the NSO. As to the survey in Bogota, it was executed by the National Administrative Department of Statistics (DANE) with funds from the ILO, DANE, the National Planning Department, and the Chamber of Commerce of Bogota.

3.2   Survey objectives

The objectives of the surveys conducted as part of the Interdepartmental Project on the Urban Informal Sector were to provide data on:

-        the number of informal sector enterprises, classified by various characteristics (e.g. kind of activity, type of workplace) to provide information on the size and composition of the informal sector and identify specific segments;

-        employment in such enterprises, including information on the number of persons engaged in the informal sector by socio-demographic and other characteristics (e.g. status in employment), their conditions of employment and work including earnings, hours of work, occupational safety and health, and their social protection status and needs;

-        output, value added, mixed income (operating surplus) and capital equipment of informal sector enterprises;

-        other characteristics pertaining to the conditions and constraints under which informal sector businesses operate, including their linkages with the formal sector, mobilization of financial resources, position with regard to the existing framework of regulations, needs for assistance, and (self-)organization;

-        characteristics of the households and household members of informal sector entrepreneurs; and

- the situation of particular groups of informal sector workers including women, children and disabled persons.

3.3   Survey design

In all three cases, a mixed household and enterprise survey approach was used. This approach was considered more suited than the identifiable establishment survey approach because the aim of the project was (i) to obtain for each city comprehensive data on the informal sector as a whole and its various segments, and (ii) to analyze in conjunction, at the enterprise or household level, the various informal sector activities that might be undertaken by the same individuals or households.

As the conditions for conduct of the surveys varied between the three project cities, survey designs were also different. However, such differences were by all means desirable because one objective of the project was to develop, test and evaluate different methods of informal sector data collection. The informal sector surveys in Dar es Salaam and Metro Manila were designed as independent surveys. In both cases, samples of enumeration areas and of households in these areas were selected for the specific purposes of the surveys. In the case of Dar es Salaam, the reasons for choosing an independent survey included methodological aspects, past experience with the same approach gained during the National Informal Sector Survey 1991 (which was conducted as part of the ILO/UNDP/SIDA Labour Market Information Project), and lack of a labour force or other base survey to which an informal sector module could have been attached. In the case of Metro Manila, the reasons for opting for an independent informal sector survey were somewhat different. Although since many years a labour force survey is being conducted in the Philippines on a quarterly basis as part of the Integrated Survey of Households, the attachment of the informal sector survey to it was not considered satisfactory under methodological considerations, including the sample size and design; anyway, such a survey arrangement would not have been feasible from the operational point of view because a number of other surveys were already to be attached to the labour force survey during the project period.

By contrast, the modular approach was used in Bogota, where the informal sector survey was designed as a sub-sample of the households included in the December 1994 round of the quarterly National Household Survey (Encuesta Nacional de Hogares). The National Household Survey is the main source of labour force data in Colombia. The reasons for attaching the informal sector survey to the National Household Survey, rather than designing an independent survey, included the reduction of survey costs and of project duration, the lack of an appropriate sampling frame for the selection of sample areas for an independent survey, the ease of estimation of the survey results, and the possibilities to link the data of the informal sector module with data of the base survey and of modules on informal sector employment and the quality of employment, which were attached to the National Household Survey in June 1994. (Since 1984, a module on informal sector employment has been attached to the National Household Survey once every other year.) The target sample size for the informal sector survey was 2,000 informal sector employers and own-account workers. However, according to the results of the June 1994 module on informal sector employment, the sample normally used for the National Household Survey, which includes for Bogota 350 segments (each composed of about 10 adjacent dwellings) with a total of

about 4,500 households, was likely to be too small to reach this target. It was therefore decided to increase the number of segments for Bogota by 55% during the December 1994 round of the National Household Survey, i.e. to include 194 additional segments, and thereby obtain a sample of about 7,000 households for the first survey phase.

As informal sector surveys are relatively costly and complex undertakings, the phase of survey planning and design (including mobilization of funds and development of the survey instruments) takes some time. For this reason, the field operations for the first survey phase could only start in December 1994 in Bogota, in March 1995 in Dar es Salaam, and in May 1995 in Metro Manila. The field work for the second survey phase (main interviews) in Dar es Salaam was started in the first week of July and completed by the end of July; it was started in the second week of August and completed in the first week of October in Metro Manila, where the largest sample was used. In Bogota, the field work for the second survey phase extended from the fourth week of August to the second week of September.

3.4   Survey content: first phase

In Dar es Salaam and Metro Manila, the first survey phase was limited to a listing operation. During the listing for the survey in <u>Dar es Salaam</u>, all households were numbered and information collected on the name of the ten cell leader of the household, the household address or other identification, and the name of the household head. In order to obtain a complete sampling frame for the second survey phase, all members of the households were listed and information collected on their name, sex and age. In respect of each household member who was 5 years or older, the following question was asked: "Does ... operate as a self-employed person any business for income-raising purposes at any time of the year?". Businesses operated as secondary activities by persons with another job were to be included on the same basis as businesses operated as main or only activity. Persons engaged exclusively in non-market production were to be excluded. Agricultural, livestock/poultry, bee-keeping or fishing activities were to be included only if they were undertaken as supplementary income-earning activities of the household along with wage employment or (an)other business(es), and if the activity was undertaken or based within Dar es Salaam. Persons rendering paid domestic services to other households were included if they considered themselves as self-employed business operators. (The term "business operator" was used in all survey instruments because it was considered more suited to the conditions of the informal sector than the terms "entrepreneur" or "business owner".)

In respect of each household member thus identified as business operator, information was collected on the number of employees (0, 1-5, 6-10, 11 or more) in his/her business(es), excluding the operator him/herself, business partners and unpaid family workers. For businesses with less than 11 employees, the type of activity was recorded in using a list of 11 activity codes which were defined in terms of the kind of economic activity combined with the presence or absence of employees. The information on the number of employees and the type of activity was needed for stratification and selection of the final survey sample; it was collected for up to three business activities per operator. For persons with more than one business activity, the main activity was determined in giving priority to the following six types of activity, if they occurred: manufacturing with employees; manufacturing without employees; construction with employees; construction without

employees; transport (with or without employees); trade, restaurants, hotels with employees. Otherwise, the time spent criterion was used. A single activity code was later assigned to each household eligible for selection in the final sample of households with informal sector operators, so that the household could be allocated to one of the 11 activity strata. To increase the number of the above-mentioned six types of activity in the final sample, priority in assigning the household activity code was given to them, if they occurred. Otherwise, the main activity of the household was taken which was usually that of the household head.

In <u>Metro Manila</u>, the first survey phase consisted of a complete listing of buildings, households and economic units (household-based business operators and establishments) in the sample areas; there was no listing of individual household members. One purpose of the dual listing of (i) households and household-based business operators and (ii) establishments was to ensure a good coverage of businesses conducted in establishments; another purpose was that the type of workplace was to be used as one of the stratification variables for selection of the final sample. An establishment was defined as an economic unit under a single ownership or control, i.e. under a single legal entity, engaged in one or predominantly one kind of economic activity at a fixed single physical location; by fixed location was meant a building, as opposed to a fixed place at a street corner or on a sidewalk. The activity had to be identifiable as an establishment in the place where it was conducted; an activity was considered identifiable if signboards showing the name of the business or of its owner were posted outside or within the place of operation.

The following information was collected during the listing: date of visit; building serial number; building name (if any) and address; main use of building (list of 11 codes); whether a person or group of persons usually resided in the building; if yes, household serial number or institutional population serial number; name of household head or institution; whether any member of the household engaged in any economic activity at any time during the past 12 months; if yes, whether any of them operated as own-account worker, employer or business partner in income-raising activities; if no, whether there was an economic activity in this building; operator serial number; name of operator or establishment; kind of income-raising activities (list of 15 codes; information recorded for up to three activities per operator or establishment); whether these activities were conducted in this building; if no, whether these activities were conducted in a fixed location elsewhere; if yes, whether these activities were identifiable; main activity of operator or establishment (detailed description); number of persons engaged in the main activity; legal organization of the business (list of 8 codes); and main activity of household (tick). The questions were designed in such a way that mutually exclusive lists of establishments and household operators without duplications were obtained; this explains the complexity of the question sequence and the number of skip instructions. The information on the main activity of the operator or establishment was coded in the office and, in conjunction with the information on the main activity of the household, used for sample stratification and selection. The information on the legal organization of the business was used to exclude from the sampling frame certain types of corporations which could be identified as early as during the listing operation.

There were two outputs from the listing operation: (i) a list of the sampling frame units and their basic characteristics was provided as needed for the stratification and selection of the sample of households and establishments for the second survey phase; (ii) as basis for locating the sample households and establishments during the field work of the second survey

phase, sketch maps for each sample area were prepared which showed the location of the households and establishments listed.

For the identification of informal sector activities in Bogota, the following data were collected during the first survey phase in respect of all persons who were employed during the survey reference week: status in employment; kind of economic activity; total number of persons engaged in the respondent's business, enterprise or establishment (1, 2-5, 6-10, 11 or more); type of workplace; period of employment of the respondent in his/her business, enterprise or establishment. The information was obtained in respect of the respondent's main as well as secondary activity. If the respondent was working in fixed premises in his/her main activity, he/she was asked to report the address and phone number of the workplace, and to report the preferred week-day and day-time for being interviewed. This information was meant to facilitate the organization of field work during the second survey phase, and to enable interviewers to conduct, if relevant, the second-phase interviews at the respondents' place of work without having to contact the households again.

3.5 Informal sector definition

All three surveys used the statistical definition of the informal sector as recommended by the Fifteenth ICLS. However, the definition was specified somewhat differently in each case, depending upon the specific national circumstances (including the need to avoid an overlap in coverage with formal sector surveys and/or the desire for comparability of the definition with that used in previous informal sector surveys).

In the case of Dar es Salaam, the households eligible for selection in the final survey sample were all households with one or more members who were operating as self-employed persons at any time of the year at least one business with the following characteristics: (i) all or at least some of the goods or services of the business were produced for sale; (ii) the business was either engaged in a non-agricultural activity, or in agriculture, livestock/poultry, bee-keeping or fishing undertaken as supplementary income-earning activity of the household and located/based in Dar es Salaam; (iii) the number of employees of the business was less than 11 in the case of mining and quarrying, manufacturing and construction, and less than 6 in the case of all other activities. As the size criterion was defined in terms of the number of employees and not in terms of the number of persons engaged, it did not apply to own-account enterprises.

In the survey for Metro Manila, households were eligible for final sample selection if: (i) one or more of their members were engaged at any time during the past 12 months in any economic activities as self-employed persons; (ii) these activities were undertaken for income-raising purposes (i.e. not for own consumption or use only); (iii) there were less than 10 persons engaged in them; and (iv) the businesses were neither government corporations nor registered as private corporations with the Securities and Exchange Commission. There was no restriction in respect of the kind of economic activity; agricultural, fishing and forestry activities were thus included on the same basis as other activities. The size criterion was defined in terms of the total number of persons engaged rather than the number of employees. It was used uniformly for all activities and, theoretically, applied to employers as well as own-account workers. However, as the cut-off was relatively high, the size

criterion was very unlikely, in practice, to exclude a significant number of own-account enterprises from sample selection. In the case of household operators engaged in more than one activity, the criteria of size and legal organization were applied to the main activity, defined as the activity which yielded the highest income. In order to determine the establishments eligible for selection in the final survey sample, only the criteria of size and legal organization (as defined above) were used.

The persons eligible for the second survey phase in <u>Bogota</u> were defined as comprising all own-account workers irrespective of the size of their business, and all employers with less than a specified total number of persons engaged in their business during the reference period (less than 11 in the case of manufacturing and construction activities, and less than 6 in the case of all other activities). Employers and own-account workers engaged in agricultural activities, electricity, gas and water, and communication were excluded. As persons exclusively engaged in the non-market production of non-agricultural goods were highly unlikely to declare themselves as own-account workers in the labour force survey interviews of the first phase, it was not felt necessary to exclude non-market production explicitly from the informal sector definition.

In all three cases, the informal sector definition was refined on the basis of the data collected during the second survey phase. The questions on the legal organization of the business and the type of accounts, which were included in the main survey questionnaire, permit the identification of unincorporated enterprises. The main interview also included questions on the registration of the business and of its employees which can be used to define the informal sector more narrowly, if desired.

3.6   Survey content: second phase

The survey questionnaires were designed with much care. A first draft was prepared by the ILO Bureau of Statistics on the basis of (i) a review of existing informal sector survey questionnaires of a number of countries, (ii) consultations with subject-matter specialists from the other ILO departments participating in the project, and (iii) discussion meetings which were held in each city with informal sector operators and their representatives in order to get first-hand information on their situation and problems. In order to ensure comparability of the types of data obtained for the three project cities, the questionnaires were supposed to have more or less the same content. Some flexibility was however needed to account for already existing information and specific data requirements in each city. Moreover, the questionnaires contained a number of questions on matters which varied from one city to the other because they depended on specific national circumstances and institutional arrangements. Such questions were formulated differently in the questionnaires for each city. It should also be emphasized that the survey questionnaires were meant to satisfy not only the information needs of the project, but also those of the national agencies which conducted and co-financed the surveys. The draft questionnaires were therefore discussed in detail with these agencies and amended, if necessary. The survey questionnaires were then subjected to a series of pre-tests, pilot surveys and workshops with data users in the project cities. During this process, the questionnaires were revised several times before the final versions were adopted. Three language versions of the questionnaires had to be prepared; the questionnaire for Bogota was designed in Spanish, and those for the

other two cities in English (with a translation into Swahili for use in the field work in Dar es Salaam).

An important aspect of the pre-tests and pilot surveys was the length of the questionnaires and the duration of the interviews. The draft questionnaires being quite long and complex, there were concerns regarding the high response burden, possible refusals to answer, and low data quality for some of the items. The length and complexity of the questionnaires were due to various factors. Firstly, because of the interdepartmental nature of the project, many topics were to be covered; in particular, data on the social protection of informal sector workers and the conditions of their employment and work including occupational safety and health were to be collected and analyzed in conjunction with the data on economic, legal and other characteristics of informal sector businesses as usually collected in informal sector surveys. Secondly, for a better understanding of the way how informal sector businesses function and the persons involved behave, information had to be collected not only on facts, but also on reasons and preferences. Finally, the needs of national data users had to be satisfied; in particular, the questions on the production, income generation and capital equipment of informal sector businesses had to be designed such that data on output, intermediate consumption, value added, mixed income (operating surplus) and fixed capital formation could be obtained for national accounting purposes. The pre-tests and pilot surveys showed that the questionnaires, in spite of their length, were manageable in the field and that no substantial cuts had to be made. However, a number of the survey questions needed to be simplified or modified, and some had to be dropped altogether because they were not well understood by respondents. On the other hand, the pre-tests and pilot surveys also showed that there was a need to add more answer categories to some questions and even to include a few new additional questions. The observation of interviews and the information obtained from interviewer reports and during the debriefing of interviewers provided useful hints on how to further improve the questionnaires for future surveys.

In Dar es Salaam and Metro Manila, three questionnaires were used during the second survey phase: (i) a household questionnaire, (ii) an operator questionnaire, and (iii) an employee questionnaire. The operator questionnaire was the main survey instrument, while the other two questionnaires were much shorter.

The information for the household questionnaire was to be obtained from the household head or another appropriate adult member of the household. The interview was conducted at the place of residence of the household. For sample establishments in the Metro Manila survey, the data for the household questionnaire were obtained from the heads of the establishments rather than the heads of their households, and the interviews were conducted in the establishments. The household questionnaire was used to collect data on the total income of the household, the composition of the household and the socio-demographic and other characteristics of each household member, including his/her engagement in economic activities and sources of income. The household questionnaire was also used to update the list of informal sector operators in the sample households, and to obtain information on the addresses of their businesses (if they were different from the household address and if the businesses were undertaken in fixed recognizable locations). Finally, the preferred day and time for conduct of the main interview were recorded for each informal sector operator.

The information for the <u>operator questionnaire</u> was to be obtained from the business operators themselves. The interview was conducted at the actual place of work if the business was undertaken in a fixed identifiable location outside the operator's home, that work place could be reached by the interviewer, and the respondent agreed to be interviewed there. In all other cases, the interview was conducted at the place of residence of the respondent's household. Data were collected on: the nature of the business (kind of activity, legal organization, number of partners) and its creation; characteristics of the work place; type of business accounts; outputs and inputs during the reference period; variations in business activity over the year; number and characteristics of the persons working in the business last month and conditions of their employment and work (status in employment, occupation, working time, earnings, mode of remuneration, type of contract, grant of paid annual leave and other benefits, social protection, etc.); conditions of business operation and linkages with the formal sector incl. subcontracting; capital equipment and capital formation during the last 12 months; credit and loans; problems affecting the business, plans for business development during the next 5 years, and kind of assistance received, if any; occupational safety and health; business registration; membership in employers/workers' organizations, business associations, self-help organizations or co-operatives; social protection of the operator; and other characteristics of the operator (place of birth, migration to the city, previous activity, educational level, vocational training, motive for participation in the informal sector, engagement in other work, amount of income from other work, main source of household income).

As most informal sector operators do not keep (detailed) records, it is difficult to obtain accurate information on the output/sales and inputs/expenses of their businesses. In order to ease the recall task of respondents, improve the quality of the data obtained and facilitate the recording of information, the questions on these items were designed as a kind of worksheets which allowed for as much flexibility as possible. Different sheets were designed for different main groups of activity (e.g. manufacturing, trade) so as to account for their particularities. Several columns were provided to record information, by type of the goods/services produced/sold or by type of the raw materials/supplies used, in cases where it was useful and feasible to obtain detailed information rather than totals only. So as to improve the quality of monetary value data, additional data on the quantities of the goods/services in question were to be collected, if possible. While the basic reference period was the last month or the most recent month of operation, respondents in Dar es Salaam were given the possibility to answer in respect of another reference period, if easier. For this purpose, the sheets contained several lines or columns for different reference periods. Monthly values were then to be computed during data editing.

Because of the short project duration, it was not possible to capture the seasonal variations in informal sector activities at the aggregate level, as would have been optimal. The only possible way of measuring such variations and of estimating annual values was at the individual level, through data collection in respect of short reference periods supplemented with questions on the intensity of business activity during each of the past 12 months and the average level of receipts in months of high/low business activity as a percentage of the average level of receipts in months of normal business activity.

The information for the <u>employee questionnaire</u> was to be obtained from a sub-sample of the employees of the business operators. During the interviews with the business

operators, all employees working in their businesses were identified and grouped into the following six categories: permanent paid employees, temporary paid employees, casual paid employees, paid apprentices, unpaid apprentices, and homeworkers/ subcontractees. For operational reasons the interviews with employees had to be conducted at the work place of the business, as it would have been impossible to contact the employees elsewhere (e.g. at the place of residence of their households). For the same reason, the employee questionnaire could not be used at all for the category of homeworkers/ subcontractees. Another possible exclusion were employees working for employers with whom, for one reason or another, the interviews for the operator questionnaire were not conducted at the place of work.

The main purpose of the employee questionnaire was to obtain information on the employees' personal characteristics, the conditions of their employment and work, and their social protection status and needs from the employees themselves, in addition to the information provided by their employers on the same topics. This was considered important for control purposes, as it was feared that the business operators would not always be able to provide accurate information on all of the characteristics of their employees, and that they might tend to give a somewhat optimistic picture of the conditions of employment and work in their businesses. The questions asked in the employee questionnaire were thus mostly a repetition of questions already asked in the operator questionnaire. There were only relatively few new questions. These related to topics on which only the employees themselves were likely to be able to provide information: marital status, household size, place of birth, migration to the city, reason for working in this job, previous activity, social protection needs, trade union membership, additional sources of income of the employee and amount received from them, total income of the employee's household and its main source, and plans regarding work in the next 5 years.

During the second survey phase in Bogota, only an operator questionnaire was used. Its structure was different from the questionnaires used in the other two cities, but its content was still comparable. There was no need for a household questionnaire as all the required information (and many more data) had already been obtained from the first survey phase, i.e. the National Household Survey. It was not considered necessary to use an employee questionnaire because much information on the personal characteristics of informal sector workers, the conditions of their employment and work, and their situation as regards social protection was available from the modules on informality and the quality of employment, which were attached to the National Household Survey in June 1994 and which were answered by all types of informal sector workers including employees.

3.7   Sample size and design

The purpose of the surveys was to provide comprehensive data on the informal sector in the three project cities in such a way that differences between various segments of the informal sector could be analyzed regarding their income-generating potential, constraints and other characteristics. The samples were therefore supposed to include an adequate number of businesses for each group of informal sector activity for which the project required separate estimates of sufficient precision. The sample size depended, of course, not only on such technical considerations but also on the human and financial resources available. For all three surveys a multi-stage sample design was used.

The sample design of the <u>Dar es Salaam</u> Informal Sector Survey 1995 was similar to that of the National Informal Sector Survey 1991 which had been developed with technical support from the ILO. It was however possible in 1995 to increase the sample size and to make some refinements of the design which could not be made in 1991 due to operational reasons and the non-availability of data. The sample areas were a sub-sample of the sample of enumeration areas of the 1988 Population Census. For conduct of the informal sector survey, it was not deemed necessary to update the population census sample through the inclusion of new enumeration areas, as there were indications that the continued growth of Dar es Salaam in recent years had led to a congestion of the population in existing residential areas rather than the coming into being of new such areas. 70 enumeration areas distributed approximately equally between the three districts of Dar es Salaam were selected from the sample of 146 enumeration areas for which information on economic activity topics was collected during the 1988 Population Census. Enumeration areas were grouped into three strata according to the density (high, medium, low) of employers and own-account workers in relevant occupations classified by broad occupational groups. (Data on industry were not collected during the population census.) For parts of the sample of population census enumeration areas, additional information was available for stratification: (i) for the enumeration areas included in the National Informal Sector Survey 1991, the density of informal sector operators as ascertained during the listing for that survey; (ii) for the enumeration areas included in the National Household Master Sample, the level of income of the population which was assumed to be negatively correlated with the density of informal sector operators. The sample areas for the 1995 informal sector survey were selected systematically from the three strata; 33 EAs were selected from the high informal sector density stratum, 23 from the medium stratum, and 14 from the low stratum. The sampling fraction varied between the three strata; it was 100% for the high informal sector density stratum, 47% for the medium stratum, and 21% for the low stratum.

At the time of the survey, the 70 sample areas contained on average about 110 households each. A total of 7,850 households and 33,165 household members were listed in these sample areas. The frame for household sample selection were the aggregated lists of eligible households (as defined in section 3.5 above) grouped by type of activity (11 activity strata). The total number of eligible households was 4,848. A total of 6,912 informal sector operators had been identified in these households. The target was to select 2,640 sample households, 240 from each activity stratum. However, some strata contained less than the required number of 240 households. These strata were enumerated completely, and the sample numbers for the other strata increased so as to obtain a total sample size of 2,626 households. Sampling from the strata was made systematically. Once a household was selected in the sample, all informal sector operators in that household were interviewed and information collected for up to three activities per operator in order to take multiple activities of households and individuals appropriately into account. The number of informal sector operators and activities included in the sample were thus larger than the number of sample households. 2,105 out of the 2,626 sample households could be interviewed, i.e. an overall response rate of 80 percent was obtained. A considerable portion of the total non-response was due to listing errors and non-contacts rather than refusals.

The respondents for the employee questionnaire were to be selected separately for each sample business that employed one or more employees other than homeworkers/ subcontractees. As the sample selection of employees was to be made by the interviewers,

the rules had to be simple: (i) one person was to be selected from each category of employees (except homeworkers/subcontractees) employed by the business in question; (ii) in doing so, interviewers were asked to achieve, as far as possible, an equal distribution of employee questionnaire respondents by sex and age groups within their workload; (iii) in order to reduce possible selection biases, interviewers were instructed to make their own selection of employees and obtain the employers' consent, rather than solicit proposals from the employers.

In the case of the 1995 Urban Informal Sector Survey in <u>Metro Manila</u>, 200 out of a total of 1,655 barangays (smallest local administrative units) were selected as primary sampling units (PSUs). The sample barangays covered all cities and municipalities of the Metro Manila agglomeration. For sample selection of PSUs, a method was used that the ILO Bureau of Statistics had had developed as part of the preparatory work for the Fifteenth ICLS. PSUs were stratified by (i) industry concentration and (ii) economic density. The variables used for stratification were household population and small establishment population. Information on the number of small establishments in the PSUs was obtained from the 1988 Census of Establishments, which had been updated in 1994 for selection of the sample of the Annual Survey of Establishments. Data on economic activity from the 1990 Population Census could not be taken into consideration for construction of the area sample frame because no information on status in employment was collected during the census. However, the density of small establishments in PSUs was found to be correlated to population density and thus considered an appropriate approximation of the density of informal sector operators. PSUs were grouped into four strata by industry concentration: trade; community, social and personal services; manufacturing; other activities. For each PSU and in respect of each of the four industry groups, a coefficient of concentration was computed in relating the number of small establishments in that PSU and industry group to the average number of small establishments in that industry group for all PSUs. Each PSU was classified in the stratum of the industry group for which its coefficient of concentration was the highest. Substrata were formed according to (i) the industry group with the second-highest coefficient of concentration (secondary industry classification), and (ii) overall economic density. The latter was defined as the ratio between the total number of small establishments and the total number of households in the PSU. The 200 sample PSUs were allocated to strata in the following proportions: 50 PSUs were to be selected from each of the four industry strata, whereby in each case 20 PSUs were to be selected from the high economic density substratum and 30 from the low economic density substratum. The sample PSUs were selected systematically within strata: in this way, the secondary industry classification could be used implicitly as a further stratification variable. The sampling fractions for PSUs in the high economic density strata were higher (average: 21%) than those for PSUs belonging to the low economic density strata (average: 9%). Sample barangays with an estimated number of households exceeding 300 were partitioned into segments of 250-300 households, and one segment was selected at random from each such barangay.

About 60,000 households and establishments were listed in the sample areas. During this process, 2,068 informal sector establishments and 10,224 households with informal sector operators were identified. These were grouped in strata according to PSU stratum (4 strata) and kind of economic activity (9 strata corresponding to the major divisions of the Philippine Standard Industrial Classification). 75 percent of the informal sector establishments and households were concentrated in two major industry divisions (wholesale

and retail trade, and community, social and personal services). The size of the final survey sample of informal sector establishments/households was set as 4,000, allocated by type of workplace (establishment vs. household-operated activity) in the following proportion: 400 informal sector establishments and 3,600 households with informal sector operators. All informal sector establishments/households engaged in agriculture, fishery & forestry, mining & quarrying, electricity, gas & water, and construction were included in the final sample. The other industry strata were sampled with differential fractions. Selection of sample establishments/households was systematic within strata. 40 establishments and 400 households were to be selected from each stratum. Strata that did not contain the required number of establishments/households were enumerated completely, and the remaining establishments/households were allocated proportionally from the other strata to obtain the total sample of 400 establishments and 3,600 households. The number of informal sector operators and activities included in the sample was higher than the number of informal sector establishments/households selected, as all informal sector operators in sample households were interviewed and information was collected for up to three activities per operator/ establishment. The procedures for sample selection of employees were similar to those followed in the Dar es Salaam survey. The overall non-response rate was 9 percent for sample households and 16 percent for sample establishments.

The sample design for the Survey of the Informal Sector in Santafé de Bogota was largely determined by the design of the base survey to which it was attached (National Household Survey). At the first stage of sampling of areas for the National Household Survey, 250 sections (secciones), each containing 15-20 blocks of houses, were selected for Bogota; selection was systematic to ensure that all parts of the city were covered. For second-stage selection of sample areas for the National Household Survey, all blocks of houses within sample sections are grouped into one of six socio-economic strata. These strata are defined in terms of the characteristics of the dwellings in the blocks. There is some relationship between the characteristics of dwellings and the density of informal sector activity of their occupiers. A total of 544 blocks of houses (manzanas) were selected systematically from the six socio-economic strata. At the third stage of area sampling, 544 segments (segmentos), one from each sample block, were selected randomly; each segment was composed of about 10 adjacent dwellings. The distribution by socio-economic strata of the 194 new segments, which were added to the sample for Bogota during the December 1994 round of the National Household Survey, was about the same as for the 350 regular segments. The sample design of the National Household Survey is self-weighting, as the probabilities of selection at the different stages of sampling are determined such that each segment has an equal chance of selection; all households and persons living in the dwellings of the sample segments are included.

The sample of the December 1994 round included for Bogota a total of 6,861 households, in which 3,372 employers and own-account workers with businesses falling within the specified size limits and branches of activity were identified. This number turned out to be much higher than expected, mainly due to the inclusion of questions on secondary activities in the survey questionnaire, and the conduct of the survey during the weeks before Christmas, when many Bogotans engage temporarily in informal sector activities. It was decided to select 2,868 persons in the sample for the informal sector survey, of which 1,892 could actually be interviewed and 976 (34 percent) could not be interviewed. The main reason for non-response was failure to contact persons who had moved to another place since

the first survey phase. The time-lag between the two survey phases was eight months, which was obviously too long. Of the 1,892 survey respondents, 1,359 were informal sector operators, while the others were owners of formal sector businesses.

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